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tion port physically insulating the sampling cannula from liquid in the target area within the patient, and the sampling hub covers the sampling cannula before the liquid is withdrawn.

38. The method of claim 37 wherein the retraction of the delivery catheter simultaneously causes the sampling hub to cover the sampling cannula and upon full insertion exposes the sampling cannula to liquid within the target area of the patient.

39. The method of claim 31 further comprising inserting a distal end of the sampling cannula through a distal valve of the hub.

40. The method of claim 39 wherein the distal valve is positioned at the region within the patient.

41. The method of claim 39 wherein the distal valve is a distal septum.

42. The method of claim 31 wherein moving the delivery catheter further comprises advancing the delivery catheter through a proximal chamber of the hub, distal to the proximal valve, until the distal end of the delivery catheter abuts a proximal end of a distal chamber of the hub.

43. The method of claim 31 further comprising advancing the distal end of the sampling cannula until a proximal end of the delivery catheter abuts a proximal end of an outer sheath.

44. The method of claim 43 wherein the outer sheath houses the delivery catheter and is connected to the sampling cannula.

45. The method of claim 31 further comprising, withdrawing the sampling cannula proximally into the delivery catheter while the delivery catheter is held by the proximal valve until the sampling cannula is within the lumen of the delivery catheter.

46. The method of claim 31 wherein the proximal valve is positioned outside the patient.

47. The method of claim 31 wherein the proximal valve is a proximal septum.

48. The method of claim 31 wherein the sampling hub contains a coating of a hydrophobic or hydrophilic material.

49. A method comprising:

a) inserting a probe device into a region within a patient, the probe device comprising a delivery catheter and a cannula located within a lumen of the delivery catheter and having a longitudinal axis, the delivery catheter being moveable over the cannula by retraction or extension of the delivery catheter;

b) moving the cannula towards a target volume of the patient causing a retraction of the delivery catheter relative to the cannula, thereby exposing the cannula to the target volume of the patient; and

30

c) placing the target volume of the patient in fluid communication with a lumen of the cannula;

wherein inserting the probe device comprises (i) transitioning a proximal valve of a hub from a closed state to an open state by inserting a distal end of the delivery catheter and the cannula at least partially through the proximal valve and (ii) inserting the cannula through a distal valve and a distal end of the hub while the distal end of the delivery catheter remains proximal to the distal valve;

wherein the probe device further comprises an outer body with the delivery catheter being located within a body chamber of the outer body, the cannula being secured to the outer body, the delivery catheter being moveable over the cannula by retraction or extension of the delivery catheter, and the cannula having a length that is shorter than a combined length of the outer body and the delivery catheter.

50. The method of claim 49 further comprising: delivering, with the cannula, a therapy to the target volume.

51. The method of claim 50 wherein the therapy is an electric shock.

52. The method of claim 49 wherein the probe device further comprises a syringe having a plunger.

53. The method of claim 49 further comprising: allowing liquid within the target volume of the patient into the cannula.

54. The method of claim 49 wherein the distal valve is positioned at the region within the patient.

55. The method of claim 49 wherein the distal valve is a distal septum.

56. The method of claim 49 wherein the cannula is inserted into a target area at a forward location within the patient, and the delivery catheter is withdrawn while the cannula remains at the forward location.

57. The method of claim 56 wherein a support element within the probe device supports a proximal end of the cannula so as to resist withdrawal from the forward location by any friction between the delivery catheter and the cannula.

58. The method of claim 49 wherein moving the delivery catheter further comprises advancing the delivery catheter through a proximal chamber of the hub, distal to the proximal valve, until the distal end of the delivery catheter abuts a proximal end of a distal chamber of the hub.

59. The method of claim 49 further comprising, withdrawing the cannula proximally into the delivery catheter while the delivery catheter is held by the proximal valve until the cannula is within the lumen of the delivery catheter.

60. The method of claim 49 wherein the hub contains a coating of a hydrophobic or hydrophilic material.

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